

MAY 2019 Update

Macro Base Station Transceiver Update

Major changes to the forecast over the last three months include:

1. We've increased our forecast for 5G < 6 GHz, due to strong and rapid shipments in Korea, as well as indications of even faster production volume requested by Huawei for China Mobile. The increase in 2019 is substantial, and we have also carried the China forecast to a higher level for 2021 because we have not seen any signs of network sharing between China Telecom and China Unicom so far.
2. The mix of 32T and 64T massive MIMO has been adjusted, to reflect the preference for 32T in the Korean market. The larger size of the 64T array was not acceptable for Korean placements, so the 32T version is used widely for the 1Q deployment. We have changed our view to show slightly lower 64T usage, and shifted our previous estimate of 16T to the 32T line.
3. On the breakdown by power level, we have adjusted the number of radios according to the 32T and 64T usage... by shifting our forecast to lower massive MIMO level, we increased the power level forecasted for many of the shipments.
4. The regional forecast has been updated to reflect higher 2019 deployment in Korea. In addition, we have added significant deployment of 5G base stations in 2019 and 2020 due to recent announcements by Japanese operators regarding their planned buildout.
5. Market shares have been updated to match with the latest OEM earnings announcements, including strong earnings from Ericsson (heavy in Korea). We have reduced Huawei's share of the 5G NR market, despite their positive announcements about 70,000 base stations 'delivered'. We believe that Huawei has put about 45,000 of these units into a warehouse, and have not actually delivered them to China Mobile yet. (possibly due to expected changes from NSA networks to SA networks, which will delay the official shipment without reducing our numbers for 2019). We have been tracking significant production by Huawei, but the announcements about field deployment have not been consistent with high-level deployment. Currently our expectation is to see "instant shipment" of at least 50,000 base stations to China Mobile when the next tender is released. This will result in wild swings in market share from one quarter to another during 2019.
6. Note that also Nokia was a bit late in supporting Korean deliveries in Q1, but will take roughly 30% of the Korean market over the longer term so the low Nokia 5G market share in Q1 is a temporary anomaly.

7. Finally, Samsung showed exceptionally strong shipments in Korea for 5G, so for 1Q2019 Samsung is the market share leader in 5G shipments. We understand that there are still some software upgrades to be made to these sites, so Samsung enjoys a “home field advantage” in delivering radio hardware, then updating software later.